What is claimed is:

1. A monitoring device for checking for a predefined position of a body or for checking for the presence of a body, comprising a pivotal checking element (52), a motor (20) for driving the checking element (52) and a control device (50) for controlling the pivotal movement of the checking element (52), characterised in that the control device (50) specifies the pivotal position of the checking element (52) in dependence on the time.

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2. A monitoring device in accordance with Claim 1, characterised in that the pivotal movement of the checking element (52) is controlled in accordance with a predefined position-time course (226; 236).

3. A monitoring device in accordance with Claim 2, characterised in that the controlled value of the control of the pivotal movement of the checking element (52) is the pivotal position of the checking element (52) at a predefined time.

4. A monitoring device in accordance with Claim 1, characterised in that the pivotal position of the checking element (52) relative to a starting position (150) is known at every time in the pivotal movement of said checking element.

5. A monitoring device in accordance with Claim 1, characterised in that the time needed by the checking element (52) for its pivotal movement from a first pivotal position into a second pivotal position is predefined.

6. A monitoring device in accordance with Claim 5, characterised in that the time, which the checking element (52) needs for its pivotal movement commencing from a starting position (150) until arriving at a checking position (228), is fixed.

7. A monitoring device in accordance with Claim 5, characterised in that the time, which the checking element (52) needs for its pivotal movement commencing from a starting position (150) until arriving at a reversal position (228; 240), is fixed.

8. A monitoring device in accordance with Claim 1, characterised in that the time, which the checking element (52) needs for its pivotal movement commencing from a reversal position (228; 240) until arriving at the starting position (150), is fixed.

9. A monitoring device in accordance with Claim 1, characterised in that the predefined position-time course (226; 236) is stored in the control device.

10. A monitoring device in accordance with Claim 1, characterised in that a control value for the control device (50) is a time increment.

11. A monitoring device in accordance with Claim 1, characterised in that a control value is a pivotal position increment or a pivotal position decrement.

12. A monitoring device in accordance with Claim 1, characterised in that a control value is formed in dependence on a predefined maximum torque of the checking element (52).

13. A monitoring device in accordance with Claim 1, characterised in that the magnitudes of path intervals and/or time increments for the control of the pivotal position of the checking element (52) are matched to the predefined position-time course (226; 236).

14. A monitoring device in accordance with Claim 1, characterised in that the control device (50) comprises a position control device (202) which compares an actual pivotal position at a certain time with a reference pivotal position and generates a control value signal in dependence on the result of the comparison.

15. A monitoring device in accordance with Claim 14, characterised in that the position control device (202) comprises a PD controller (210).

16. A monitoring device in accordance with Claim 1, characterised in that the control device (50) comprises a torque control device (214) which compares an actual motor current with a reference motor current and generates a control value signal in dependence on the result of the comparison.

17. A monitoring device in accordance with Claim 16, characterised in that the torque control device (214) comprises a P controller (222).

18. A monitoring device in accordance with Claim 1, characterised in that a motor driver (102) is provided for controlling the motor (20) in dependence on one or more control values.

19. A monitoring device in accordance with Claim 18, characterised in that the motor driver (102) provides a pulse width modulated signal for controlling the motor (20).

20. A monitoring device in accordance with Claim 14, characterised in that there is provided a control value limiter (212) to which control value signals delivered by the position control device (202) and the torque control device (214) are supplied for producing a torque limiting control value signal.

21. A monitoring device in accordance with Claim 1, characterised in that the checking element is pivotable commencing from a starting position (150) through a transition region (142) into a monitoring region (144) in which the predefined position of the body lies or in which the presence of a body should be monitored, and in that the control device (50) limits the torque of the checking element (52) in such a manner that the maximum possible torque in the monitoring region (144) is reduced relative to that in the transition region (142).

22. A monitoring device in accordance with Claim 21, characterised in that the motor (20) is a dc motor and the supply of current to the motor (20) is adapted to be limited by the control device (50).

23. A monitoring device in accordance with Claim 1, characterised in that the control device (50) controls the pivotal movement of the checking element (52) via combined position, speed and torque controlling.

24. A monitoring device in accordance with Claim 21, characterised in that the speed of the checking element (52) is reducible during its transfer from the transition region (142) into the monitoring region (144).

25. A monitoring device in accordance with Claim 24, characterised in that the reduction of the torque limit is effected after the reduction in the speed of the checking element (52).

26. A monitoring device in accordance with Claim 1, characterised in that an angle transmitter (38) is provided for detecting the position of the checking element (52).

27. A monitoring device in accordance with Claim 21, characterised in that the transition region (142) comprises an acceleration region (152) in which the speed of the checking element (52) is increased commencing from the starting position (150).

28. A monitoring device in accordance with Claim 21, characterised in that the transition region (142) comprises a braking region (156) in which the speed of the checking element (52) is reduced.

29. A monitoring device in accordance with Claim 21, characterised in that the speed of the checking element (52) is maintained substantially constant between an acceleration region (152) and a braking region (156) of the transition region (142).

30. A monitoring device in accordance with Claim 21, characterised in that the speed of the checking element (52) is maintained substantially constant in the monitoring region (144).

31. A monitoring device in accordance with Claim 21, characterised in that the control device (50) undergoes a learning cycle for determining the monitoring region (144).

32. A monitoring device in accordance with Claim 31, characterised in that a plurality of predefined position-time courses is stored in the control device (50) and a specific position-time course is selected in dependence on a monitoring region as determined in a learning cycle.

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33. A monitoring device in accordance with Claim 32, characterised in that the monitoring region (144) is set by the control device (50) such that it begins at a certain angular amount prior to a position of the body detected in the learning cycle.

34. A monitoring device in accordance with Claim 1, characterised in that stop means (28, 34) are provided for limiting the pivotal movement of the checking element (52).

35. A monitoring device in accordance with Claim 34, characterised in that, for the purposes of setting a reference position (150) of the checking element (52), this is moved at a predefined speed into a stop position in which corresponding stop means (28, 34) touch.

36. A monitoring device in accordance with Claim 35, characterised in that, for the purposes of defining the reference position (150) of the checking element (52) in the stop position, corresponding stop means (28, 34) are rotated against each other at low torque.

37. A monitoring device in accordance with Claim 1, characterised in that a seal (68) is arranged between the checking element (52) and a housing (12) for accommodating the motor (20) around a shaft (22) by means of which the checking element (52) is driven.

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38. A monitoring device in accordance with Claim 37, characterised in that the seal (68) abuts on the checking element (52) and abuts on the housing (12).

39. A monitoring device in accordance with Claim 37, characterised in that the seal (68) is formed symmetrically about an axis (24).

40. A monitoring device in accordance with Claim 37, characterised in that the seal (68) is seated between the checking element (52) and the housing (12) co-axially relative to the shaft (22).

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41. A monitoring device in accordance with Claim 37, characterised in that an intermediate space (69) is formed between the shaft (22) and the seal (68).

42. A monitoring device in accordance with Claim 37, characterised in that the seal (68) is adapted to be rotationally fixed relative to the checking element (52).

43. A monitoring device in accordance with Claim 42, characterised in that the checking element (52) comprises a mounting element (64) for the seal (68) onto which the latter is adapted to be put in order to fix it non-rotationally on the checking element (52).

44. A monitoring device in accordance with Claim 43, characterised in that the mounting element (64) is formed by a mounting ring through which the shaft (22) is guided and onto which the seal (68) is adapted to be put.

45. A monitoring device in accordance with Claim 43, characterised in that an annular recess (66) for accommodating the seal (68) is formed between the mounting element (64) and the checking element (52).

46. A monitoring device in accordance with Claim 37, characterised in that an outer diameter of the seal (68) substantially corresponds to the diameter of the checking element (52).

47. A monitoring device in accordance with Claim 37, characterised in that the seal (68) comprises a packing ring (70) for the purposes of putting it onto the checking element (52).

48. A monitoring device in accordance with Claim 37, characterised in that the seal (68) comprises a collar (72) having a V-shaped sealing lip (74) which abuts on the housing (12).

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49. A monitoring device in accordance with Claim 48, characterised in that the collar (72) is rotatable with the checking element (52) relative to the housing (12).

50. A monitoring device in accordance with Claim 48, characterised in that the outer surface (78) of the collar (72) is substantially in the form of a truncated cone at least when force is not being applied thereto in the axial direction.

51. A monitoring device in accordance with Claim 50, characterised in that an imaginary cone peak of the collar (72) points towards the checking element (52).

52. A monitoring device in accordance with Claim 50, characterised in that the inner surface (80) of the collar (72) is substantially in the form of a truncated cone at least when force is not being applied thereto in the axial direction.

53. A monitoring device in accordance with Claim 48, characterised in that an axial extent of the seal (68) can be varied via the collar (72).